

June 28, 2017

Ms. Maryam Babaki, P.E.  
Director of Public Works & Development Services Department  
City of Commerce  
2535 Commerce Way, Commerce, CA 90040  
Phone 323-722-4805 Ext. 2337/Fax 323-888-6537

Subject: Veteran's Memorial Park Recreational Center Improvement Project

Dear Maryam,

We are pleased to submit this proposal on behalf of IDS Group to provide consultation services for the referenced project.

It is understood that the City is currently considering several options to rehab the Veteran's Memorial Park where the main recreational building has suffered significant distress over the years and is currently vacant. While considering several other directions, the City is focusing on the options of (1) repair and retrofit the recreational building to comply with the 2016 CB code requirements, and (2) demolish the recreational building, turn the site into a low-maintenance park, and build a "Sprung" sport building within the site premises. IDS Group shall provide the City with the needed decisions-making tools that include cost of each option, anticipated development schedule, and pros and cons of each option. In addition, the information gathered in this study shall be used to develop the base of design and provide valuable information needed for the PS&E of the future project.

### **Background**

The Existing Veteran's Recreation Building is a one-story building with a partial basement and a partial mezzanine level that was originally designed and constructed circa 1969-1970 (Ref.1). Its construction consists of a cast-in place concrete basement and first floor structure, a cast-in-place interior and perimeter walls at the first level and mezzanine, and a wood-framed roof structure. Over the years the building suffered from major distress including soil settlement, cracks in slabs and walls, and damage to utilities connected to the building. The building is currently vacant. The abatement of the hazardous material is complete.

The City of Commerce is very interested in the development of the Veteran's Memorial Park. As part of that development, the City is requesting a comprehensive report to study all the parameters required to bring the recreational facility back to life including the rehabilitation of the existing recreational building, or constructing a "Sprung building" instead. It is noted that the City has recently completed a facility condition assessment for all its facilities including the Veterans Park building before the abatement (Refs. 2 & 3). This multi-disciplines condition assessment study was based on walk-through screening review and proved to be instrumental in developing cost estimates for the City capital budget. The investigation in this proposal, however, shall be more specific to the Veteran's Recreation building and is needed before proceeding with full design of the selected option as it compares all options considered, defines the base of design and scope, and develops a more accurate budget.

It is important to note that existing recreational building was constructed on a site that was previously used as a landfill site. Distress related soil settlement has been previously documented at the building and site. Reference 4 includes a geotechnical investigation prepared by Associated Soils Engineering with the objective of 1) delineating site subsurface soil conditions within the areas of Veteran's Memorial Park Recreation Building affected by observed settlement and cracking, 2) identifying potential factors that

might have contributed to the experienced foundation distress, and 3) evaluating and outlining feasible appropriate mitigation measures to stop the ongoing foundation distress and restore the building to its original elevations and functionality.

In this geotechnical investigation three exploratory borings were used ranging in depth from 25 ft. to 50 ft. The site subsurface soils encountered in the three borings were categorized into three different soil strata. The upper artificial fill (up to 4.5 ft. deep) consisted mainly of fine silty clay with organic odor. Intermediately beneath the upper artificial layer was artificial fill of sand, silt and clay containing significant amount of trash and debris (ranging in thickness from 9 ft to 25 ft.) Under this layer, a native alluvial soil was found. It is noted that no ground water was encountered in the maximum explored depth of 50 ft.

To remedy the distress observed in the building due to soil settlement, two methods were recommended including replacement of the weak artificial fill material, and the use of 12" galvanized steel micro piles to shore the distressed areas. The micro piling method was considered the preferred remedy solution.

### **Proposed Scope of Services**

The proposed scope of services includes three major tasks:

The First Task (Task #1) is to conduct thorough assessment of the existing recreational building which includes:

- 1.1 Geotechnical Engineering Investigation
- 1.2 Structural/Seismic Assessment
- 1.3 Mechanical, and Electrical Engineering Assessment
- 1.4 Study of the Plumbing System and Utility Connections to the Building.
- 1.5 Conceptual Rehabilitation of the Building to bring it up to code.
- 1.6 Parking Lot Rehabilitation Study
- 1.7 Cost Estimate of the Rehabilitation including the needed interior improvement.

The Second Task (Task # 2) includes the consideration of a "Sprung" Building as a replacement of the existing recreational building. This task includes:

- 2.1 Prepare a cost estimate of the demolition of existing recreational building and converting it to a low maintenance park.
- 2.2 Select up to two alternative locations of the "Sprung" building in cooperation with the City officials.
- 2.3 Perform comprehensive geotechnical investigation at the proposed locations.
- 2.4 Consider the needed foundation system and slab-on-grade of the "Sprung" building and examine site logistics.
- 2.5 Examine the utility connections to the "Sprung" Buildings and accessibility at the selected sites.
- 2.6 Provide cost estimate of all options.

The Third Task (Task # 3) is the development of the Summary Report and Presentation that includes:

- 3.1 Comparison of construction cost of each option.
- 3.2 Identification of Pros and Cons of each Option.
- 3.3 Estimate of the Construction Schedule
- 3.4 Define Base of Design of Future Project.

### 3.5 Presentation to the City.

The efforts needed for the tasks identified above are be outlined as follows:

#### **Task # 1: Through Assessment of the Existing Recreational Building**

This assessment includes review of existing data, site investigation and performing the following subtasks:

##### **1.1 Geotechnical Investigation:**

Associated Soil Engineering (ASE) as a member of IDS team will perform the needed geotechnical engineering for the project. The work includes conducting several borings and CPTs and develop geotechnical recommendations to support the structural engineering assessment of the building. In particular issues related to Soil-Structure interaction and measures needed to stabilize the foundations will be addressed. The detailed Geotechnical engineering scope of work is provided in ASE's proposal provided in Attachment 2.



##### **1.2 Structural and Seismic Investigation–**

The structural engineering scope of work will include conducting seismic analysis of the building based on performance-based evaluation, which includes:

- Review the readily visible areas of structural gravity and lateral framing systems.
- Provide a description of the type and configuration of the structure and develop an opinion of its current condition. This will also include a review of the lateral force resisting elements.
- Perform soil/structural interaction seismic study to examine the effect of the soft soil strata underneath the building on the overall seismic performance.
- The review of the lateral force resisting system will include evaluation of the building for the Basic Performance Objective for Existing Buildings (BPOE) and the Basic Performance Objective Equivalent to New Building Standards (BPON) for Risk Category II structures consistent with the ASCE 41-13 standard “Seismic Evaluation and Retrofit of Existing Buildings.”
- Develop recommendations and ROM cost for potential repairs and upgrades.

##### **1.3 Mechanical and Electrical Engineering Assessment–**

The scope of work will include performing the following tasks:

- HVAC and Building Management System – It is noted that during the Hazard Mitigation project most of the HVAC ducts and equipment were removed with the exception of roof top Equipment. IDS will examine the remaining equipment, identify the basic type of the remaining heating, ventilation and air-conditioning and distribution system at the building, and the apparent or reported age of the equipment, past material component replacements

or upgrades, comfort or control issues reported by building occupants, and the apparent level of maintenance exercised. The survey will include the need of the following:

- Major HVAC equipment to include roof top units, exhaust fans, and interior HVAC units; fan coils, VAV's, etc.
  - Condition assessment of roof curbs and equipment pads
  - Major distribution duct work overall condition, locations, sizes
  - Ceiling diffusers, locations, sizes, conditions
  - Controls systems – identify type, manufacturer, condition, layout
- Electrical – Identify the electrical service provided, the distribution system including panels, transformers, meters, emergency generators, general lighting systems, and other such equipment or systems. Review will include observations of the type of wiring, energy management systems, emergency power, and lighting protection. The survey the following:
- Major electrical equipment to include main service/metering switchgear, sub-panels
  - Condition assessment of the equipment code issues
  - Identify utility company service equipment, pad mount transformers, vaults, etc.
  - Major panel feeder conduits
  - Interior lighting and controls – locations, condition, code issues
  - Site lighting and controls, parking areas, building lighting, condition and code issues
  - General description of misc. power, outlets, equipment
  - Telephone and Data rooms, condition, service entrance (MPOE)
  - Identify low voltage systems, fire alarms, security, misc. controls

#### **1.4 Plumbing/ Utility –**

The scope of work under this sub-task is to identify and observe the material plumbing systems including piping (sanitary, storm and supply water), fixtures, domestic hot water production, noting any special or unusual plumbing systems. The survey will include the following:

- Identify utilities, domestic water, sewer, gas and its connections to the building.
- Identify utility company meters for water and gas is associated with the City.
- Condition assessment of the equipment code issues – water heaters, pumps, etc.
- Condition assessment of plumbing fixtures, restrooms, breakrooms and any code issues
- Survey roof drains and identify locations, condition and code issues.

#### **1.5 Conceptual Rehabilitation of the building to bring it up to current Code including ADA –**

The scope under this task is to provide concepts of rehabilitation to bring the building up to code based on the findings in Task 1.1 through Task 1.4. It is noted the City has hired an ADA consultant who provided an accessibility report to the City.

## **1.6 Parking Lot Rehab:**

It is evident that the parking lot around the facility has experienced significant settlement and distortion which impose moving hazards and drainage problems. In addition, the settlement occurred at the site has caused previous breakage of the utility trenches and connections to the buildings. The cost estimate performed in the previous assessment report by F&G did not include the costs of the remediation of the parking lot distress and anchoring the utility trenches. The proposed scope of work includes:

- Recommend methods of rehabilitation of the parking lot distress.
- Investigate methods of strengthening and anchoring the utility trenches and the connections to the building.

## **1.7 Cost Estimate of the Rehabilitation –**

This subtask includes the development of cost estimate of the rehabilitation of the existing recreational building includes all items identified in Task 1 through Task 1.5. It is noted that the cost estimate will include ADA and anticipated improvements measures. The cost estimate will also include the construction costs related to site/utility laterals based on the above investigation.

## **Task # 2: Option of the Development of Sprung Building at the Veterans Park Site.**

The Second Task includes the consideration of a “Sprung” Building as a replacement of the existing recreational building. This scope of work includes:

- 2.1 Prepare a cost estimate of the demolition of existing recreational building and converting it to a low maintenance park. This cost estimate will be included in Task 3.1 below.
- 2.2 Recommend up to two locations of the “Sprung” building in cooperation with the City. The site locations will be within the premises of the Veterans Memorial park. The recommendation will be based on the accessibility to the site, location of the utilities, and geotechnical assessment.
- 2.3 Perform geotechnical investigation at the proposed locations. This effort is outlined in the attached Geotechnical Report (Attachment 2).
- 2.4 Evaluate the foundation system and slab-on-grade of the “Sprung” building. This effort will be conducted in collaboration with the Geotechnical consultant.
- 2.5 Examine the utility connections to the “Sprung” building and access to the selected sites.
- 2.6 Develop cost estimate of these options. This will be included in Task 3.1 below.



## **Task # 3: Development of the Summary Report and Presentation**

In this task IDS will prepare a concise final report that includes clear recommendations and options (with cost estimate for each options). This report upon completion shall be used to develop a PS&E, which is one of the major objective of this study. The subtasks under this effort include the following:

- 3.1 Cost Estimate for each Options. IDS will provide a ROM cost estimate for all the options identified in Task 1 and 2 of this Study
- 3.2 Identification of Pros and Cons: IDS will outline the advantage and disadvantage (pros and cons) of each option.
- 3.3 Consideration of the Environmental Processing requirement for each option based on a feedback from the City's environmental consultant.
- 3.4 Estimate of Construction Schedule: IDS will provide an estimate of construction duration of each development in Tasks 1 and 2.
- 3.5 Establish Base of Design: with consultation with the City, IDS will define the base of design of the future projects.
- 3.6 Presentation to the City. IDS with Geotechnical consultant will present the findings to the City management.

### **Fees: & Schedule**

We propose to provide the scope of work outlined above for a lump sum fee of **\$135,166.00** including the Geotechnical investigation. The breakdown of charges is shown in the table provided in Attachment 1. This spreadsheet is provided for informational purposes only, and may not be considered as a warranty of the exact distribution of hours that will be required to perform the work. Terms and conditions of this proposal include performing basic services as defined in the City of Commerce Master agreement with IDS.

A summary of the breakdown of the fees is provided in the table below:

Task	Fee
Task # 1 (Existing Recreational Building Investigation)	\$79,377.00
Task # 2 ("Sprung" Building Investigation)	\$18,140.00
Task # 3 (Report/Presentations and Meeting)	\$11,804.00
Geotechnical Investigation (Based on Prevailed Wages)	\$25,455.00
Reimbursable Expenses	\$400,00
Total	\$135,166.00

The above fee includes also the cost estimate preparation of the project with estimated fee of \$10,480.00.

The project Geotechnical schedule is included in the attached geotechnical report which requires approximately six weeks (6) from Notice to Proceed (NTP) and from obtaining permit of drilling. The entire project schedule is estimated to be eight to ten weeks from the time of NTP.

Thank you for the opportunity to submit this proposal. Please don't hesitate to contact us if you require further information regarding this proposal and fee.

Sincerely;

IDS Group, Inc.



Said Hilmy, Ph.D., SE  
Principal

Attachment # 1 Breakdown of Charges

Attachment # 2 Geotechnical Investigation Proposal

Attachment 1

Investigation of the Veteran's Memorial Park Recreational Center Development																													
Breakdown of Charges vs. Tasks				Project Management/ Cost Estimate and Admin								Structural/ Civil				Mechanical/ Electrical				Architectural Support									
				Principals/ PM		Q/A Q/C		Admin.		Cost Estimate		Senior Engineer		Designer		Senior M/E Engineer		M/E Engineer		Plumbing Designer		Senior Architect		Architect		Senior Designer			
				Total Hours	Total Fees	Rate = \$184		Rate = \$173		Rate = \$53		Rate = \$131		Rate = \$142		Rate = \$95		Rate = \$131		Rate = \$95		Rate = \$95		Rate = \$142		Rate = \$116		Rate = \$120	
				Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost		
TASK # 1 Existing Recreational Bldg.																													
1.1 Geotechnical Investigation (See separate rep																	\$0		\$0										
1.2 Structural/ Seismic Assessment				131	\$18,911	8	\$1,472	2	\$346	1	\$53		\$0	120	\$17,040		\$0		\$0		\$0		\$0		\$0		\$0		
1.3 Mechanical/ Electrical Assessment				134	\$16,350	16	\$2,944	1	\$173	1	\$53		\$0		\$0		\$0	60	\$7,860	40	\$3,800	16	\$1,520		\$0		\$0		
1.4 Plumbing System & Utility Connections				82	\$10,378	16	\$2,944	1	\$173	1	\$53		\$0	24	\$3,408		\$0		\$0		\$0	40	\$3,800		\$0		\$0		
1.5 Conceptual Rehabilitation to bring up to Code				130	\$15,266	8	\$1,472	1	\$173	1	\$53		\$0	40	\$5,680	40	\$3,800	8	\$1,048	32	\$3,040		\$0		\$0		\$0		
1.6 Parking Lot Rehabilitation				58	\$7,926	4	\$736	1	\$173	1	\$53		\$0	40	\$5,680		\$0	4	\$524	0	\$0	8	\$760		\$0		\$0		
1.7 Cost Estimate of Rehabilitation				82	\$10,546	4	\$736	1	\$173	1	\$53	40	\$5,240	0	\$0		\$0		\$0		\$0		\$0	4	\$568	16	\$1,856	16	\$1,920
Total				581	\$79,377	56	\$10,304	7	\$1,211	6	\$318	40	\$5,240	224	\$31,808	40	\$3,800	72	\$9,432	72	\$6,840	64	\$6,080	4	\$568	16	\$1,856	16	\$1,920
TASK # 2 "Sprung Building Concept																													
2.1 Consideration of Demolition of Existing Bldg				23	\$2,981	2	\$368		\$0	1	\$53	0	\$0	2	\$284		\$0	8	\$1,048		\$0		\$0	2	\$284	4	\$464	4	\$480
2.2 Selection of Building Locations				24	\$3,190	4	\$736		\$0	0	\$0		\$0	4	\$568		\$0	2	\$262	2	\$190	2	\$190	2	\$284		\$0	8	\$960
2.3 Geotechnical Investigation (See Attachment)									\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		
2.4 Foundation Investigation				16	\$2,252	4	\$736		\$0		\$0		\$0	8	\$1,136	4	\$380		\$0		\$0		\$0		\$0		\$0		
2.5 Site Logistics				22	\$2,986	4	\$736		\$0		\$0		\$0	4	\$568		\$0	2	\$262	2	\$190	2	\$190	4	\$568	2	\$232	2	\$240
2.6 Cost Estimate of Options				51	\$6,731	2	\$368		\$0	1	\$53	40	\$5,240	2	\$284		\$0	2	\$262		\$0		\$0	2	\$284		\$0	2	\$240
						1	\$184		\$0	1	\$53		\$0		\$0		\$0		\$0		\$0		\$0	1	\$142		\$0	8	\$960
Total				106	\$18,140	17	\$3,128	0	\$0	3	\$159	40	\$5,240	20	\$2,840	4	\$380	14	\$1,834	4	\$380	4	\$380	11	\$1,562	6	\$696	24	\$2,880
TASK # 3 Summary Report and Presentation																													
3.1-3.4 Report Development				57	\$8,095	8	\$1,472	2	\$346	1	\$53		\$0	16	\$2,272		\$0	24	\$3,144		\$0		\$0	4	\$568		\$0	2	\$240
3.5 Presentations/ Meetings				21	\$3,709	8	\$1,472		\$0	1	\$53		\$0	4	\$568		\$0	8	\$1,048		\$0		\$0	4	\$568		\$0	0	\$0
Total				78	\$11,804	16	\$2,944	2	\$346	2	\$106	0	\$0	20	\$2,840	0	\$0	32	\$4,192	0	\$0	0	\$0	8	\$1,136	0	\$0	2	\$240
IDS Group Labor					\$109,321	\$28,996								\$41,668				\$29,138				\$10,858							
Reimbursable					\$400																								
Consolidated Soil					\$25,445																								
Mark-up					\$0																								
Total Investigation					\$135,166	Fixed Fee																							

## References

1. Architectural and Engineering Plans for “Quigley Park” Recreation Building prepared by Anthony & Langford (AIA) in 1969 as provided by Mr. Paul Banuelos of Swinerton Management & Consulting;
2. Citywide Executive Summary Report for Facility Condition Assessment Services, February 2, 2016 provided by AB Engineering Team for the City of commerce.
3. Report for “Assessment of the Veterans Park Community Center and Alternatives for a City Indoor Sports Facility for the Civic Center for the City of Commerce, May 1m, 2017, By Transtech Engineers, Inc. This report provided to us by Ms. Maryam Babaki includes information about the Sprung Building Configuration and Cost.
4. A “Report of Foundation Distress Investigation and Repair Recommendations,” dated March 27, 2007 was prepared by Associated Soils Engineering, Inc. Site Visit
5. Meetings with the City’s official during the Month of June 2017 by Said Hilmy from IDS Group and Lawrence Chang from ASE.

Attachment 2

Geotechnical Investigation by Associated Soil Engineering, Inc. (ASE)



June 27, 2017  
Proposal No. P17-104^R1.1(PW)

**IDS Group, Inc.**

1 Peters Canyon Road, Suite 130  
Irvine, CA 92606

Attn.: Dr. Said Hilmy, SE, LEED AP  
Principal

VIA MAIL & E-MAIL

Subject: **Proposal for: 1) Limited Geotechnical Investigation and Retrofit Recommendations (inclusive of 2016 CBC Update) for the Existing Recreation Building; and 2) Supplemental Geotechnical Investigation for an Alternative Sprung Structure to be constructed on Veteran's Memorial Park Premises**

Veteran's Memorial Park  
6364 Zindell Avenue, City of Commerce, California

References: (see Appendix A)

Dear Sir,

In accordance with your request on June 14, 2017, Associated Soils Engineering, Inc. (ASE) is privileged to submit this budget proposal for: 1) performance of limited geotechnical investigation and provision of retrofit recommendations complying with 2016 CBC requirements for the existing Recreation Building (the Building) located within Veteran's Memorial Park (the Park) of the City of Commerce (the City) as an update to the Project Soils Report (Reference 1), and 2) performance of supplemental geotechnical investigation with regard to the alternative sprung structure (the Sprung Structure) that might be constructed on the Park's premises as a replacement to the Building.

This proposal has been prepared based on 1) ASE's review of structural and architectural plan (References 2 and 3) provided by Mr. Paul Banuelos of Swinerton Management & Consulting; 2) ASE's review of the assessment report for the Sprung Structure (Reference 4) provided by Ms. Maryam Babaki, the City's Director of Public Works and Development Services Department, 3) site visit and meetings with the City's officials on June 15 and 21, 2017 by ASE's chief engineer, Lawrence Chang; 4) ASE's past experience with projects of similar scope, and 5) previous information gathered by ASE when preparing the Project Soils Report (Reference 1).

**SITE CONDITIONS AND PROPOSED IMPROVEMENTS**

The conditions at the subject site and its surrounding are essentially the same as that described in the Project Soils Report (Reference 1). ASE understands that the environmental abatement and removal of

asbestos and lead –related materials within the subject building was completed earlier this year. The interior of the subject building was devoid of all drywalls, insulation and ceiling prior to ASE’s site visit on June 15, 2107.

Based on the discussion with Mr. Matthew Rodriguez, Interim City Administrator, on site on June 15, 2017, ASE understands that the City is currently considering one of the three (3) following approaches with regard to the existing building and the site:

- Repair and retrofit the subject building to comply with 2016 CBC requirements;
- Demolish the subject building and re-build a new building on site; and
- Demolish the subject building and turn the subject site into a low-maintenance park.

As part of the cost and impact study related to the City’s decision making on the suitable approach to undertake on the Building, additional geotechnical information pertaining to: 1) the presence and competency of subgrade soils beneath the basement level and, if necessary, suitable foundation strengthening measures, 2) the extent and depth of debris fill beneath the sub-floor level together with the suitable measures in mitigating the undesirable debris fill and/or in underpinning the sub-floor foundation, 3) the updated geotechnical design parameters and criteria in compliance with 2016 CBC requirements, and 4) any other foundation design input required by the Structural Consultant, is needed.

In addition, following the meeting with the City’s officials on June 21, 2017, ASE understands that the City is also exploring the option of constructing a new Sprung Structure on the premises of the Park as a replacement to the Building. As such, supplemental geotechnical investigation aiming at providing sufficient information and design recommendations complying with 2016 CBC requirements for the Sprung Structure will be needed as part of the scope of ASE’s proposed services.

## **GEOTECHNICAL INVESTIGATION AND CONSULTATION**

### **Scope of Services**

Based on ASE’s understanding of the site conditions and the City’s objectives, it is proposed to perform the following geotechnical tasks:

- a. Performance of site reconnaissance to identify site features that might impact the proposed geotechnical investigation, and to mark in the Building twelve (12) exploratory boring locations, six (6) in the sub-floor areas where significant distress have been observed over the years and six (6) in the basement level (shooting range) to verify whether competent native soils or compacted fill is immediately beneath the basement floor. Additional three to four (3 ~ 4) exploratory boring locations will be marked at the location of the Sprung Structure to be provided by the City. The site marking will be followed by 72-hour notification to the Underground Service Alert (USA). The

approximate coring/boring locations within the Building are shown on the attached Proposed Boring Location Map, Exhibit 1. The exploratory boring locations for the Sprung Structure will be determined upon confirmation of the location by the City.

- b. Review of both public and in-house geotechnical and geological literature relevant to the subject site area. Based on ASE's preliminary review of CGS's seismic hazard mapping for the South Gate Quadrangle, the subject site is located within a seismic hazard zone with liquefaction potential. As such, per the requirements of 2016 CBC, the supplemental geotechnical investigation for the Sprung Structure will need to include detailed quantification of liquefaction potential and its associated hazards of site subsurface soils to a minimum depth of 50 feet, and to address the pertinent remedial measures needed to mitigate the identified seismic hazards. Due to the anticipated close proximity between the Building and the Sprung Structure, the results of such liquefaction analysis will also be incorporated as part of the analysis/evaluation necessary for formulating the repair and retrofit recommendations for the Building.
- c. For limited geotechnical investigation and soils sampling for the Building, deployment of a 2-man crew equipped with concrete coring machine, manually-operated auger and sampling kit for subsurface soils investigation and sampling in the pre-marked boring locations. ASE proposes to perform boring, logging and sampling at the six (6) exploratory borings located in the sub-floor areas to a maximum depth of 15 feet, or until the encounter of competent native soils, whichever comes first. For the six (6) verification borings located at basement level, subsequent to concrete coring, ASE anticipates to perform boring, logging and sampling of subgrade soils to a maximum depth of 10 feet, or until at least two (2) feet into competent native soils or compacted fill, whichever comes first. At each boring location, ASE's crew will perform 6-inch-diameter concrete coring to penetrate through the existing concrete slab in order to expose the subgrade soils for subsequent soils boring. These test borings will be for the determination of general subsurface and groundwater conditions, as well as to delineate the extent and depth of debris fill beneath the sub-floor areas. Logging and sampling of representative subsurface soils will be performed by ASE's representatives. The exploratory borings will be backfilled and tamped tightly with native cuttings and patched with "Quik-set" cement, the same day after completion of field exploration.
- d. For supplemental geotechnical investigation for the Sprung Structure, deployment of a truck-mounted, 8-inch-diameter hollow stem auger rig for sampling and logging of three to four (3 ~ 4) exploratory borings, depending on the Sprung Structure location and accessibility. Out of the three to four (3 ~ 4) exploratory borings, two (2) will be advanced to 50 feet deep, or until the encounter of practical refusal, whichever comes first, for the needed liquefaction analysis. The other one to two (1 ~ 2) will be advanced to 30 feet deep, or until the encounter of practical refusal, whichever comes first, for gathering supplemental geotechnical data. Information obtained and logged from these exploratory borings, together with laboratory test data and engineering analyses, will be based upon to determine general subsurface and groundwater

conditions, to facilitate liquefaction potential analysis, and to delineate any other soil and geologic parameters that may affect the Sprung Structure. Logging and sampling of representative subsurface soils will be performed by ASE's geologist/engineer, as well as recording of blow counts accompanying advancement of soil samplers. The blow counts will be indicative of the natural consistency of on-site soils, which in turn will have implication on the liquefaction susceptibility and the required extent of remedial grading, as appropriate. The exploratory borings will be backfilled and tamped tightly with the native cutting materials from the borings and patched with "Quik-set" cement or asphalt chips, whichever and wherever is applicable, the same day after the completion of exploration.

- e. Deployment of a Cone Penetrometer Test (CPT) rig to perform continuous profiling of soil strata in areas of the Building and the Sprung Structure, to provide supplemental soils information such as shear wave velocity and modulus of subgrade reaction to facilitate the soil-structure interaction analysis to be carried out by IDS Group, and to facilitate the liquefaction analysis for the areas of the Building and the Sprung Structure. ASE proposes to probe two (2) locations each in the areas of the Building and the Sprung Structure to a depth of seventy (70) feet, or until the encounter of practical refusal, whichever comes first.
- f. Performance of geotechnical laboratory testing for the determination of soil's classification, gradation, in-situ density/moisture, maximum dry density/optimum moisture content, consolidation, shear strength, sensitivity, plasticity, R-value, expansion potential and corrosive characteristics of soil materials encountered during site investigation to provide basis for subsequent engineering analyses.
- g. Performance geotechnical evaluations and analyses based on field findings and laboratory test data, followed by assembly of updated recommendations complying with 2016 CBC for the updated foundation repair and retrofit measures for the Building, including supporting the utilities through duct banks that are in turn supported by helical piles or micropiles or other similar foundation system, taking into account the results of liquefaction analysis derived from the study done on the Sprung Structure. For the Sprung Structure, ASE will assemble recommendations for suitable foundation design and construction parameters complying with 2016 CBC and the manufacturer's foundation criteria, taking into account the results of pertinent liquefaction analysis. In addition, ASE will perform a site-specific seismic analysis for the production of site-specific response spectra and seismic design parameters, complying with the requirements of 2016 CBC.
- h. Preparation of a Report of Geotechnical Investigation and Updated Recommendations (the Update Soils Report) presenting our findings, conclusions and recommendations, which includes, but not limited to, site subsurface soils conditions and stratification, in particular the extent and depths of debris fill beneath sub-floor areas and basement level of the Building, groundwater depth (if encountered), data and results obtained from field investigation and laboratory testing, suitable

foundation underpinning measures, geotechnical design and construction parameters of any foundation, flatwork, and utilities, and updated design parameters and criteria for structural retrofit per 2016 CBC, taking into account the results of liquefaction analysis derived from the study done on the Sprung Structure. For the Sprung Structure, ASE will present in the Update Soils Report the site subsurface soils conditions and stratification, groundwater depth, geologic and seismic hazard assessment and mitigation, data and results obtained from field investigation and laboratory testing, remedial grading criteria, design and construction parameters of Sprung Structure foundation covering shallow footing foundation and, if applicable, deep foundation, slab-on-grade, temporary excavation, and utilities. ASE intends to provide sufficient geotechnical assessment and recommendations on the three (3) approaches that the City is currently contemplating for Building, as well as the alternative construction of the Sprung Structure, in the Update Soils Report, inclusive of approximate cost indications for various geotechnical systems/approaches. Once the final approach is decided by the City, any additional geotechnical design evaluations and recommendations required beyond what are available in the Update Soils Report will be provided by ASE with addenda.

- i. Attendance of project design and planning meetings and preparation of consultation/response to geotechnical and geological inquiries raised by the City, the fellow design consultants and/or public agencies reviewing the subject project.

### **Estimate of Budget**

The estimated budget for the above proposed geotechnical services based on **prevailing wage scale** is tabulated below:

Item	Rate	Hr / Ea.	Sum	Sub-total's
a. Site Reconnaissance, Marking & USA Alert				
Project Engineer/Geologist	\$145.00	2	\$290.00	\$290.00
b. Field Exploration (Geotechnical Investigation, concrete coring, soils sampling, and patching)				
<u>For the Building</u> : 2-man crew (one technician + one helper) w/ concrete coring machine, manually-operated drilling equipment & sampling kit				
Supervising technician x 1	\$160.00	24	\$3,840.00	
Field operation helper x 1	\$75.00	24	\$1,800.00	\$5,640.00
<u>For the Sprung Structure</u> <sup>a</sup> :				
Truck-mounted, Hollow-Stem Auger Drilling for soils borings (by subcontractor)	\$350.00	11 <sup>b</sup>	\$3,850.00	
Project Engineer/Geologist for logging and sampling of exploratory borings	\$145.00	11 <sup>b</sup>	\$1,595.00	\$5,445.00
<u>For both Buildings</u> <sup>a</sup> :				
Truck-mounted, CPT Rig (by subcontractor)	Lump Sum (1 day)		\$4,000.00	\$4,000.00
c. Geotechnical Laboratory Testing	Lump Sum		\$2,700.00	\$2,700.00
d. Analysis and Report Preparation				

(continued)

Principal Engineer/Geologist	\$165.00	2	\$330.00	
Project Engineer/Geologist	\$145.00	16	\$2,320.00	
Staff Engineer/Geologist	\$125.00	16	\$2,000.00	
Drafting & Office Services	\$60.00	8	\$480.00	\$5,130.00
<b>e. Meeting Attendance, Consultation &amp; Preparation of Responses</b>				
Project Engineer/Geologist	\$145.00	12	\$1,740.00	
Staff Engineer/Geologist	\$125.00	4	\$500.00	\$2,240.00
a. Assuming the geotechnical investigation for the Sprung Structure is to take place at the same date/time as the investigation for the Building. b. Inclusive of anticipated OT hours.	<b>TOTAL</b>	<b>For Updated Soils Report (Items a through d)</b>		<b>\$23,205.00</b>
		<b>For Updated Soils Report + Meeting/Response (Items a through e)</b>		<b>\$25,445.00</b>

If one or more of the following conditions becomes applicable: a) the scope of services is incorrect; b) additional reports are requested for individual buildings/improvements; or c) design changes are made either in your office, by governmental agencies, or by the other design consultants that require additional work and effort, the estimated budget could increase. However, ASE will not perform any additional services without communication with the Client and is subject strictly to the Client's written authorization. The above budget estimate has been based on regular weekday hours of working starting at 7AM. If the site investigation can only be carried out at night or during weekend, the Field Exploration and/or the Filed Percolation Testing portion of the above budget estimate is subject to revision to reflect the applicable overtime or weekend rates. The final revised figure will be provided upon the Client's finalization of preferred work schedule.

### **Time Frame**

ASE is prepared to begin the geotechnical investigation immediately upon receipt of your signed authorization. We anticipate that field exploration would be completed within two (2) weeks following the confirmation of the Sprung Structure location by the City and the clearance of the 72-hour notification to the Underground Service Alert, assuming no significant delay due to weather, drill rig availability, site accessibility, permit clearance or changes in scope. Laboratory testing, analysis, and report preparation would require approximately four to five (4 ~ 5) weeks following the completion of site exploration. However, verbal or written input of preliminary geotechnical information of the site could be available eighteen (18) working days after completion of site exploration.

### **CLOSURE**

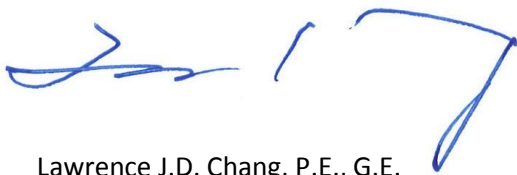
The fees for the services related to the preparation of the Updated Soils Report, i.e. Items a through d in the Table on Page 5, would be invoiced on a lump-sum basis upon completion and submission of the Update Soils Report. All additional services required by the Client under Item e tabulated on Page 5, would be billed monthly on a time and material basis, up to the estimated sum listed. Should even more work and

effort is required beyond the estimated budget tabulated under Item e on Page 5, the additional work and effort would be billed monthly on a time and material basis per the attached January 2017 Fee Schedule. However, ASE will not perform any additional services beyond the budget presented in this Proposal without communication with the Client and is subject strictly to the Client's written authorization.

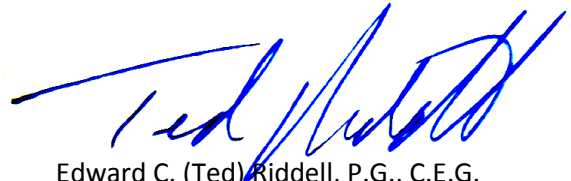
Please be reminded that, unless otherwise agreed by both parties, the above fee estimates will be honored by ASE for a period of six (6) months from the proposal date. Should the authorization not be received by ASE within the 6-month period, ASE reserves the right of reviewing/revising the above fee estimate when necessary.

We appreciate the opportunity to submit this proposal. If there are any questions or you need clarification, please contact us at (562) 426-7990.

Respectfully submitted,  
**Associated Soils Engineering, Inc.**



Lawrence J.D. Chang, P.E., G.E.  
Senior Engineer – Vice President



Edward C. (Ted) Riddell, P.G., C.E.G.  
Principal Geologist – President

Attachment: January 2017 Fee Schedule  
Exhibit 1, Proposed Boring Location Map

Distribution: (1) hard copy+ (1) PDF copy – addressee (via mail & email: said.hilmy@idsgi.com)

## **Appendix A References**

1. Associated Soils Engineering, Inc., 2007, "Report of Foundation Distress Investigation and Repair Recommendations, Veteran's Memorial Park Recreation Building, 6364 Zindell Avenue, City of Commerce, California," Project No. 07-5972, dated March 27<sup>th</sup>.
2. Plans entitled "Quigley Park – Recreation Building, 6364 Zindell Avenue, City of Commerce, California," consisting of Title Sheet, Sheets A-1, A-1A, A-1B, A-2 through A-25, and R-1 through R5, print dates vary, File No. 6811Q, prepared by Anthony & Langford Architects.
3. Plans entitled "Quigley Park – Recreation Building, 6364 Zindell Avenue, City of Commerce, California," consisting of Sheets S1, S-1, S1A, and S2 through S14, print dates vary, File No. 6811Q, prepared by Ross Connors Associates.
4. Transtech Engineering, Inc., 2017, Report entitled "Assessment of the Veterans Park Community Center and Alternatives for a City Indoor Sports Facility for the Civic Center," dated May 1<sup>st</sup>.

# JANUARY 2017 FEE SCHEDULE

## ENGINEERING & TECHNICAL SERVICES (Rate per Test)

Principal Geotechnical Engineer/Geologist	\$ 165.00	Pile Inspector (Drilled/Driven/Tieback)	\$ 110.00
Project Engineer/ Geologist	\$ 145.00	Registered Deputy Inspector	\$ 110.00
Staff Engineer/Geologist	\$ 125.00	Laboratory Technician	\$ 70.00
Supervising Technician (Lab/Field)	\$ 105.00	Technical Typist	\$ 60.00
Field Technician	\$ 75.00	Technical Illustrator	\$ 70.00
Field Technician (Prevailing Wage)	\$ 110.00	Field/Lab Assistant	\$ 60.00
Field Support Services	\$ 60.00	Expert Witness (Preparation & Court – 4 hr. min.)	\$ 350.00
Office Services	\$ 60.00		

## LABORATORY TESTING & CORING SERVICES (Rate Per Test)

<u>Classification &amp; Index Tests</u>		<u>Compaction &amp; R-Value Tests</u>	
Sand Equivalent (Cal 217 or ASTM D2419)	\$ 70.00	Max Density/Opt. Moisture ASTM D1557 (Method A and B)	\$ 165.00
Atterberg Limit (LL&PL per ASTM D4318-D84)	\$ 135.00	Max Density/Opt. Moisture ASTM D1557 (Method C)	\$ 175.00
Shrinkage Factors (ASTM D427)	\$ 100.00	Max Density/Opt. Moisture California 216	\$ 175.00
Sieve Analysis including Hydro (ASTM D422)	\$ 145.00	R-Value Natural Soil (Cal 301 or ASTM 2844)	\$ 235.00
Sieve Analysis – retained 200 mesh	\$ 90.00	R-Value Cement or Lime treated Soil (Cal 301 or ASTM 2844)	\$ 260.00
200 Wash	\$ 50.00	R-Value Aggregate Base (Cal 301 or ASTM 2844)	\$ 265.00
Moisture Content (ASTM D2216)	\$ 20.00	CBR (ASTM D1883) - Soil	\$ 310.00
Moisture Content & Dry Density – Ring (D2937)	\$ 35.00	CBR – Base	\$ 390.00
Moisture Content Dry Density – Shelby Tube	\$ 35.00	<u>Consolidation &amp; Expansion Tests</u>	
Specific Gravity – Soil	\$ 110.00	Consolidation ASTM D2435 (Method A)	\$ 185.00
<u>Strength Tests</u>		Consolidation ASTM D2435 (Method B)	\$ 340.00
Direct Shear UU (1 point)	\$ 90.00	Time Rate per Load Increment	\$ 38.00
Direct Shear UU (3 points)	\$ 180.00	Expansion Index (2.5" Diameter Specimen)	\$ 110.00
Direct Shear CD (3 points)	\$ 210.00	Expansion Index (4.0" Diameter Specimen)	\$ 130.00
Unconfined Compression	\$ 260.00	Single Load Swell or Collapse Test	\$ 115.00
Residual Shear (3 Shear)	\$ 240.00	<u>Asphalt Concrete Tests</u>	
<u>Soil Chemistry Tests</u>		Mix Design by Marshall or Stabilometer Method	Quote
Sulfates	\$ 70.00	Field Density for Compacted Mix (Cal 308)	Quote
Chlorides	\$ 70.00	Thickness of Compacted Mix	\$ 30.00
Ph	\$ 70.00	Theoretical Max. Sp. Gravity & Density of Bituminous Mixtures (ASTM D 2071)	\$ 140.00
Resistivity	\$ 90.00	Extraction of Bitumen Mat., % Oil in mix (ASTM D2172, Meth. A)	\$ 150.00
Corrosivity Suite (So4, Cl, pH, Resistivity)	\$ 260.00	Maximum Density Determination (Cal 304, 2 pt. Avg.)	\$ 190.00
<u>Diamond Coring</u>		Stability Value (Cal 366)	\$ 140.00
2" to 6" Diameter	\$ 60.00	Extraction of Bitumen Material by Ignition Method	\$ 210.00
8" to 9" Diameter	\$ 75.00	<u>Aggregate &amp; Base Course Tests</u>	
Hourly Charge Portal-to-Portal/Standby Time	\$ 160.00	Durability of Aggregate (Cal 229)	\$ 250.00
Minimum Charge	\$ 320.00	Sieve Analysis, Fines Only (ASTM C136)	\$ 90.00
<u>Compression Tests</u>		Sieve Analysis, Fines & Coarse (ASTM C136 or (Cal 202)	\$ 110.00
Compression Test 6"x12" Cylinders incl Hold (ASTM C39) each	\$ 20.00	Cleanliness Value CTM 227	\$ 135.00
Compression Test, 2", 4" and 6" Cores (ASTM C42) each	\$ 55.00	Sp. Gravity, Fine aggregate incl. % Absorption (ASTM C128)	\$ 130.00
Mortar Compression	\$ 20.00	Sp. Gravity, Coarse Aggregate incl. % Absorption (ASTM C127)	\$ 100.00
Grout Compression	\$ 30.00	Abrasion Resistance-LA Rattler, 100-500 rev. (ASTM C131)	\$ 200.00
Masonry Prisms	\$ 100.00		

## BASIS OF CHARGES

**Regular Hours:** Monday to Friday-7:00 AM to 4:00 PM

**Overtime Hours:** 1.5 times regular rate over 8 hours per day, night shifts and Saturdays. 2 times regular rate on Sundays, Holidays and work days over 12 hours.

**Minimum Charge:** 2-hour minimum for show-up if not cancelled two (2) hours prior to arrival. 4-hour minimum if inspection is equal to or less than four (4) hours.  
Charges for all field work will be computed on a portal-to-portal basis with a minimum of two (2) hour show-up. Field work will be billed on a time and material basis unless quoted otherwise.

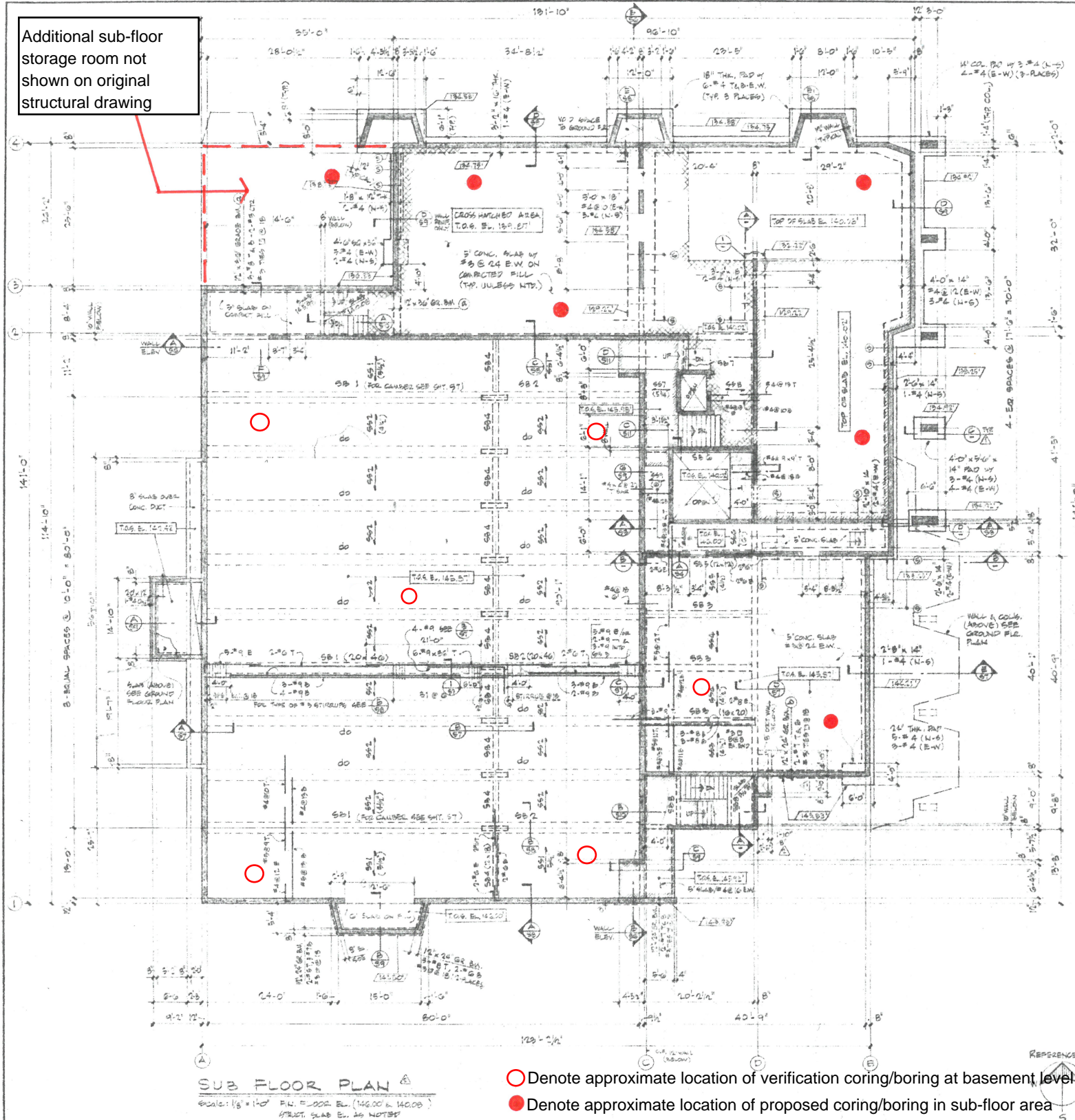
**Advance Notification:** A minimum 24-hour lead time, excluding week-ends and public holidays, is required from the Client for any field or laboratory services requested.

Laboratory test rates do not include time and material cost of obtaining the samples. Outside equipment/services, if applicable, will be billed on the basis of our cost plus 15%.

Engineering reports (up to 5 copies) shall be billed on a time and material basis with a minimum charge of \$400.00. Additional copies will be furnished at a cost of \$0.60 per page, plus \$10.00 for binding.

Fees charged are for professional and technical services and are due upon presentation. If not paid within thirty (30) days of invoice, they are considered past due and a finance charge of 1½% per month will be added to the unpaid balance (18% annual percentage rate).

Additional sub-floor storage room not shown on original structural drawing



REVISIONS	ENGINEER	APPROVALS	MAURICE H. QUIGLEY PARK	T. V. ANTHONY II	AN7
1. ADDED APPENDIX A/B/C/D	BUSE CONNORS ASSOCIATES CONSULTING STRUCTURAL ENGINEERS 200 W. WASHINGTON, SUITE 200 SALT LAKE CITY, UT 84111 (801) 521-1111		6364 ZINDELL AVENUE	C-1260	
2. REVISED PLAN & OTHER RELATIONS				V. WALLACE LANGFORD	
3. ADDED SHEET D			CITY OF COMMERCE	C-5501	
4. ADDED SHEET E					12422

**Exhibit 1 Proposed Boring Location Map**  
 (excerpted from Sheet S2 of Reference 3)